VORKING AROUND #GLOBE

Oak Ridge National Laboratory provides a multi-disciplinary approach to country needs and U.S. priorities. ORNL expertise includes:

- · capacity building
- data systems
- · emergency response
- · technology exports, and
- international cooperation in science and technology.

Capabilities

Bilateral technical assistance on energy efficiency and clean, renewable energy initiatives. ORNL has in-house capabilities and technical experts on energy efficient building and transportation technologies, materials, sensors, electronics, power and infrastructure design that have been benefiting developing countries around the world. (e.g., New Energy Algeria is promoting hybrid power systems)

Geographic Information System (GIS) Decision Support System for environmental, clean and renewable energy, and energy efficiency technology implementation in key markets. A web-based GIS system with one-stop shopping of visual and data resources, for investors and decision-makers, to facilitate costeffective technology deployment decisions in priority countries.

Success Story

The LandScan GIS (geographic information system) database is the world's finest population distribution database. LandScan utilizes more than 13,000 compact discs containing geographic information. LandScan is routinely used by over 1,000 organizations and governments worldwide to assess populations at risk, including the historic 2004 tsunami damage and relief plan efforts. For example, personnel can determine number, description, and location of tsunami victims—helping relief workers to know how, the type and quantity of aid to send. ORNL has expanded the query capability to include a decision support screening tool-GREEN will be used to find promising locations and markets for U.S.-developed and -manufactured renewable energy and energy efficiency technologies.

Expertise on global climate change. ORNL has distinguished experience and leadership working with countries around the world to address climate change and mitigation strategies through sustainable development (e.g., Clean Energy Technology Exports, World Summit on Sustainable Development).

Strategic Country Partnerships

- India: ORNL has 20 years experience working with leading institutions and organizations in India on DOE's energy technology deployment and climate change mitigation, including GREEN.
- China: ORNL currently provides technical leadership on integrated architectural design and technology deployment planning for "Greening Beijing for the 2008 Olympics" in addition to 10 years of working with 23 member

International Activities

United Kingdom

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Keyword search:

Search

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economies participating in APEC's Energy Efficiency Expert Working Group.

- Russia and the Former Soviet Union: ORNL provides technical assistance on DOE PI's bilateral and regional initiatives including the Black Sea - Caspian Sea Environmental Information Center and US-Kazakhstan Energy Partnership, organizing and implementing projects and government-togovernment meetings in the region.
- European Commission: ORNL provides technical support to the EC's Scientific Reference System on Clean Energy Technologies including Report Evaluations, Market Analysis, and R&D Analysis.

Directory of ORNL International Projects

A corporate information system of the international energy efficient and renewable energy activities across ORNL has over 250 entries spanning over 70 countries. The rotating globe has an interactive feature that allows you to click on a specific country to view activities. www.ornl.gov/estd/globedb

Greening Beijing for the 2008 Olympic Games

ORNL is playing a key role in coordinating the activities associated with the U.S./China Protocol on Greening Beijing for the 2008 Olympics, with particular emphasis on Green Building Standards and the Greening of the Olympic Village.

Island Nations

ORNL has an ongoing program to promote clean energy technology deployment, working with DOE and USAID. ORNL established a Renewable Energy Center in Barbados and is working on a regional center for all island nations.

BEIJING 2008

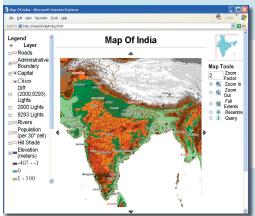


NEAL (New Energy Algeria)

Providing technical assistance to DOE and New Energy Algeria to foster international collaboration

on renewable energy technologies and introducing U.S.

companies to NEAL.



Providing technical support to Eastern Europe and Central Asian initiatives. Energy efficiency, rural electrification, agricultural water use, and revenue-producing uses of renewable energy sources in rural areas are all important elements of the U.S.-Kazakhstan Partnership activities and the Central Asian Regional Renewable Energy Roadmap.

- U.S.-Kazakhstan Energy Partnership
- U.S.-Azerbaijan Energy Dialog

Energy Working Groups

• U.S.-Russia Energy Working Group

Geographically-Integrated Renewable Energy and ENergy Efficiency

GREEN technology deployment decision support system was built at ORNL. GREEN can integrate disparate economic, demographic, topographic, climatic, infra-

structure, and other data bases to identify promising locations for renewable and energy efficiency technologies. Real-time information is presented with powerful visualizations on GREEN's Internet site using GIS technology.

Aliya Zhanttikina (interpreter), Study Tour Deputy Secretary Kyle McSlarrow, Minister Vladimir ORNL coord-Skholnik, Musabek Isayev, inated a Study Director, Oil Dept., Ministry of Tour across the Energy & Mineral Resources

U.S. for Kazakh at the U.S.-Kazakhstan Energy Partnership Working Group, and Uzbek reprein Astana, Kazakhstan sentatives to identify feasible applica-

renewable energy sources for rural villages.

tions of electricity from

Examining Low Energy Precision Application equipment & no-till planter at Texas A&M June 2005







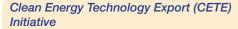
at pump

IEA Heat Pump Program

ORNL provides technical research and development support to the IEA Heat Pump Program, an international information service for heat pumping technologies, applications, and markets. ORNL serves as the U.S. national team representative and collaborates with an eighteen member U.S. industry team. www.ornl.gov/estd/usiea

Black Sea and Caspian Sea Environmental Information Center

Providing information to assist in the preparation, training, and information sharing on oil spills and other regional environmental issues relating to the Black Sea and Caspian Sea. Currently the site is receiving up to 1000 hits per day from more than 50 countries. www.pims.ed.ornl.gov



CETE is a nine-agency initiative to improve the federal government's role in promoting exports of clean energy technologies—promoted by the U.S. Senate. ORNL is providing technical support to CETE.

Sustainable Redevelopment of Communities Destroyed by the Tsunami

ORNL is working to find locations appropriate to implement sustainable communities and find local partners to assist with housing construction and other community designs, and is also identifying U.S. team members to assist with the project.



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